

ANAX AND CALLITHAUMA, TWO GENERA
OF AMARYLLIDACEAE-EUSTEPHIEAE
FROM PERU

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Anax is described as a new genus with two species from Peru, viz., *A. mirabilis* (Rav.) Rav., and *A. elwesii* (Bak.) Rav., the former being the type species.

The genus *Callithauma* Herb., based on *Pancratium viridiflorum* Ruiz & Pav., is revalidated. It is closely related to *Paramongaia* Velarde, rather than to *Stenomesson* Herb. *P. viridiflorum* had been mistaken in the past with the species here identified as *Anax elwesii* (Herbert 1841, Bentham & Hooker f. 1883, Baker 1888, Macbride 1931).

ANAX gen. nov.

Flores patentes textura crassa breviter pedicellati. Perigonii tubus et pars concreta tepalorum edistincti corpi unicum anguste infundibulatum rectum vel leviter arcuatum conformantes. Tepala contigua in urceola conniventia subaequalia oblongo-elliptica. Poculum staminale perigonio brevior obtuse sex-lobatum margine integro. Filamenta infra marginem poculi inserta, petalina sepalinis paulo breviora. Antherae anguste ellipticae; polinibus granuli subfusiformes. Stylus perigonio haud superans; stigma capitato-clavatum. Capsula tricocca latiuscula coccis inferne prominentibus. Semina compressa nigra papyracea ovato-oblonga.— Plantae procerae bulbosae. Bulbus ovato-oblongus in pseudocollo praelongo productus. Folia ad anthesin nulla vel incipientia lorata basin versus carinata. Scapus compressus solidus. Spatha bivalvata valvis ovatis saepe persistentibus. Inflorescentia 4-5-flora.— Typus generis: *Anax mirabilis* (Rav.) Rav. (*Stenomesson mirabile* Ravenna).

Two species from the Andes of Peru. The genus name was taken from the greek *ἄναξ*, meaning prince.

DISCUSSION OF CHARACTERS

Bull. It resembles those in *Callithauma* Herb., and *Paramongaia* Velarde; although being somewhat narrower than in these genera, it is similarly prolonged into a long pseudoneck.

Leaves. They are quite similar to those in *Paramongaia* Velarde, resembling also, but less, those of *Callithauma*.

Scape. It is compressed as in *Paramongaia*; the scape of *Callithauma* is cylindrical.

Spathe bivalved, compressed, the valves ovate, often persistent. *Callithauma* bears a pair of lanceolate, soon marcescent valves, and *Paramongaia* a single membranous, marcescent tubular valve.

Pedicels. They are short to very short. In *Callithauma* they are well developed, and in *Paramongaia* the single flower is sessile.

Perigone. It is fleshy, and of a rather thick texture, contrasting with *Callithauma* and *Paramongaia*, where the perigone has the usual fairly delicate substance.

Androecium. The staminal cup is fleshy and thick textured; it is 6-lobed, as in *Callithauma*, and *Paramongaia*, but in these genera it is fragile, and with denticulate edges. Herbert (1841) gave two different distorted representations of the staminal cup of "*Callithauma viridiflorum*" (actually *Anax elwesii*) with the presumable intention to match it as close as possible to Ruiz and Pavón's description of *Pancratium viridiflorum*, basionym of *Callithauma viridiflorum* (Ruiz et Pav.) Herb. *Callithauma* Herbert (1837), was based on this description. The filaments are of two different lengths and inserted below the edges of the staminal cup.

Gynoecium. Ovary, style, and stigma show no special distinctive feature. Capsule and seeds are similar to those in *Stenomesson*, *Phaedranassa* Herb., or *Pucana* Rav. for instance.

CONCLUSIONS. *Anax* is a distinct genus allied to *Callithauma*, and *Paramongaia*, belonging in tribe *Eustephieae* Pax (syn.: *Stenomesseae* Traub).

Species included:

1. *Anax mirabilis* (Rav.) comb. nov.

Basionym: *Stenomesson mirabile* Ravenna, Pl. Life 27: 77, 1971.

Perigone tube, and concrescent part of tepals green, free portion of tepals red, staminal cup snow white.

2. *Anax elwesii* (Bak.) comb. nov.

Basionym: *Stenomesson viridiflorum* (Ruiz et Pav.) Benth. et Hook. fil., var. *elwesii* Baker, Gard. Chron. n.s. 9: 756, 1878. = *S. elwesii* (Bak.) Macbride, Field Mus. Bot. 11: 10, 1931.- Flowers entirely green.

THE GENUS *CALLITHAUMA*

Callithauma Herbert, Amaryll.: 225, 1837.

Descriptio generico-specifica emend. et ampl.

Callithauma viridiflorum (Ruiz et Pav.) Herbert, Amaryllidaceae: 225, 1837.- Excl. opera Herbertiana in Curtis Bot. Mag. 67: tab. 3866, 1841 a *Anax elwesii* refero.

Basionym: *Pancratium viridiflorum* Ruiz et Pavon, Fl. Peruv. et Chil. 3: 55, 1802.

Syn.: *Stenomesson viridiflorum* (Ruiz et Pav.) Bentham et Hooker fil., Gen. Pl. 3: 733, 1853.

Plant 70-80 cm high. Bulb ovoid or ovoid-oblong, 10-15 cm long, 6-8 cm wide, the pseudoneck often very long, and mostly aerial, 30 mm broad at the apex. Leaves lor-ate, channelled, erect, dull green, subacute, usually appearing simultaneously with the flower scape, 30-50 cm long, 25-35 mm broad. Scape cylindrical, solid, glaucescent. Spathe bivalved, valves lanceolate, marcescent, 30-35 mm long. Inflorescence 4-5-flowered. Pedicels well developed, spreading obliquely, 7-9 cm long. Flowers green, subpatent. Perigone ca. 53 mm long, 30 mm wide, the tube slightly curved, and slightly enlarged above; both series of tepals ascending or spreading obliquely, 18-20 mm long; the outer ones oblanceolate, 7-8 mm broad, the apices 3 mm long; inner tepals sub-elliptic, subacute, 9-10 mm broad. Staminal cup ca. 20 mm long, 18 mm wide, 6-lobate, the lobes sparsely denticulate, and crenulate, 1.5-2 mm long, indentate-apiculate for 0.8-1 mm. Filaments filiform except for the slightly ampliate base; the episepal ones 5-5.5 mm long, attached at 9 mm above the staminal cup base; the epipetal-epipetal 6 mm long, attached at 11 mm above the cup base. Anthers versatile, reniform, 4.5-4.9 mm long. Ovary oblong, green, 6 mm long, 2.8 mm thick. Style equalling the cup in length; stigma capitate.

DISTRIBUTION AND HABITAT. Rocky slopes above Palca, in the dept. of Junín, Perú; also near Huasahuasi (acc. to R. & P.), a nearby hamlet. The environment is somewhat xerophytic, and the species grows close to thorny bromeliads; altitude 2500-2800 m.

COLLECTIONS. In decliviis abruptis supra Palca civit. Junín Peruviae; Ravenna 2852, Sept. 1982 (Herb. Ravennae neotype).

Callithauma is closely related to *Paramongaia*. As a matter of fact, the flower design is quite similar to that in the latter genus. It is clearly distinguished in the cylindrical scape, 2-valved spathe, several flowered inflorescence, well developed pedicels, and much smaller, almost patent flowers.

LITERATURE CITED

- Baker, J.G. 1888. Handbook of Amaryllideae, 216 pp.
- Bentham, G., & Hooker, J.D. 1883. Genera Plantarum 3: 733.
- Herbert, W. 1837. Amaryllidaceae, 428 pp., 48 pls., facsimile ed. 1970 by J. Cramer, Lehre.
- 1841. *Callithauma viridiflorum*; Curtis's Bot. Mag. 67: tab. 3866.
- Macbride, F. 1931. Spermatophytes mostly Peruvian III; Field Mus. Nat. Hist. Bot. 11: 3-35.

A NEW SPECIES OF *EUCHARIS* (AMARYLLIDACEAE)
FROM BOLIVIA

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Eucharis boliviensis Ravenna, sp. nov.

Planta 50-55 cm alta. Bulbus subglobosus 48 mm latus tunicis exterioribus fusco-ochraceis in pseudocollum ad 5 cm longum productus. Folia 10-15 cm longa lamina elliptica 17 cm longa et 6.5-7 cm lata. Scapus cylindricus 43-51 cm longus. Spatha 4-8-flora valvis subaequalibus lanceolato-attenuatis marcescentibus ad 30 mm longis. Pedicelli brevi 10-16 mm longi. Flores nutantes. Ovarium ovatum subtriquetrum 3-4 mm longum et 2.5-3.5 mm latum. Perigonium explatatum album 43-45 mm latum, tubo 25-30 mm longo. Tepala subaequalia lanceolata 23-25 mm longa et 8-12 mm lata, exterioribus apiculo 2-2.5 mm longo, interioribus acutis. Poculum staminale 9-10 mm longum in lobos sex 1.7 mm longos partita; filamenta lanceolata ab apice loborum continuantia, sepalinis 4 mm longis, petalinis 5 mm longis. Antherae oblongae 2.2 mm longae. Stylus filiformis ad 5 mm longus. Stigma capitato-trilobatum.

COLLECTIONS. Bolivia, La Paz, vic. Rurrenabaque, 550 m; Cárdenas 1553, 25-V-1921 (NY). Idem, Cosendo, 407 m; G. E. White 930, 19-VIII-1921 (NY holotype).

In a previous paper (Ravenna 1982), I recorded the genus (as *Urceolina*) in Bolivia, upon the same materials cited, which I studied at NY in 1976. However, I consider now the specimens representing a new species; the narrower leaves, shorter pedicels, and smaller flowers support this new appraisal.

REFERENCES

- Ravenna, P. 1982. Contributions to South American Amaryllidaceae IX; Pl. Life 38: 42-55.